



APPRAISAL BULLETIN

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THREE VALUES

SINCE our last two Appraisal Bulletins were devoted to calculating replacement cost by the cubic foot and the square foot methods, it may be in order to consider the application of these methods to the three key values with which the real estate appraiser is most vitally concerned.

THREE KEY VALUES

The prices of these three values are established in three distinct markets, namely: the construction market, the income market and the exchange market. These three markets determine the value or cost of replacement, the rent or price of use and the price in exchange or market price. From the prices established in these three markets the appraiser possesses the basis for determining MAXIMUM VALUE, VALUE and MARKET VALUE. The appraisal of all types of real properties involves all of these three values.

Maximum Value, which includes the sum of the value of the land for its highest and best use, the replacement cost of the improvements and other unique values (such as historic values, etc.), represents the ceiling above which VALUE cannot go, based on the theory that the value of any property cannot be greater than the cost to replace it. (See "A" on appraisal work sheet III, page 306.)

Value is the capitalized sum or the present value of all future benefits of a property. VALUE is sometimes described as the price at which a seller would be justified to sell or a buyer would be justified to buy, regardless of whether actual conditions would warrant a price below or above VALUE. VALUE is also frequently synonymous with long-term investment value, stabilized value, justified value, etc. Either with or without such designations, VALUE is the most important item an appraiser is called upon to appraise. With certain special use properties whose use is not readily measurable by rent, VALUE is determined from MAXIMUM VALUE less the depreciation accrued during the expended useful life of the property. (See "B" on appraisal work sheet III, page 306.)

The third important value, Market Value, represents the price that the property would bring as the result of a voluntary sale if the property were placed on the market. MARKET VALUE frequently carries with it a "surplus discount" (in a distressed market) or a "scarcity premium" (in a scarcity market). This "surplus discount" is the amount deducted from the appraised value due to an oversupply of similar buildings, whereas the "scarcity premium" is the amount added to the appraised value by virtue of a scarcity of similar types of buildings. (See "C" on appraisal work sheet III.)



APPRAISAL WORK SHEET - II CONSTRUCTION COST

ADDRESS OF PROPERTY St. Louis County, Missouri
MADE FOR Mr. John Doe

APPRAISAL N° _____
AS AT Aug. 15, 1948
MADE Aug. 15, 1948

MINOR IMPROVEMENTS ON LAND

WALKS	concrete	400	SQ FT @	25¢	100-
DRIVES			SQ FT @		
FENCES			L F @		
SOODING			SQ YDS @		
WALLS					
GARDENS					
SHRUBS					
ORCHARDS					
MISCELLANEOUS	concrete ash pit			90-	190-

MAIN IMPROVEMENTS

PROPOSED ☐

DESCRIPTION A two story and full basement frame residence with frame interior with three rooms and lavatory on first floor, and three rooms and bath on second floor. One-car frame garage attached.

TYPE Residence AGES New

SPECIFICATIONS

SIZE	CONSTRUCTION	
BSMT <u>full</u>	BLOG FRAME <u>frame</u>	SEPTIC TK <u>none</u>
PENTHS <u>-</u>	FOUNDNS <u>12" reinf. conc.</u>	ROUGH PLBG <u>modern</u>
STORIES <u>2</u>	BSMT FL <u>3 1/2" concrete</u>	PLBG FIXT <u>modern</u>
STORES <u>-</u>	EXT WALLS <u>frame</u>	TYPE HEAT <u>forced warm air</u>
OFFICES <u>-</u>	ROOF <u>asphalt shingle</u>	HEAT'G PT <u>Standard</u>
GARAGES <u>1</u>	METAL WK. <u>copper</u>	MECH STRK <u>-</u>
DW UNITS <u>1</u>	INT PART'NS <u>plaster</u>	OIL BURN <u>-</u>
FULL RMS <u>6</u>	SPEC WALLS <u>-</u>	GAS FIRED <u>-</u>
EFF RMS <u>-</u>	INT TRIM <u>yellow pine</u>	WATER HTR <u>gas fired automatic</u>
KITCHENS <u>1</u>	DOORS <u>2 panel 1 3/8" gum</u>	AIR COND <u>blower & filters</u>
KITCHENETTES <u>-</u>	FLOORS <u>cl. pl. red oak 7/8"</u>	INSUL'N <u>4" rockwool wall & ceil.</u>
DINETTES <u>-</u>	SPEC FLS <u>tile in bath & lav</u>	SPRINKLER <u>-</u>
SUN RMS <u>-</u>	TILE <u>wsect. bath & lav.</u>	SKYLIGHTS <u>-</u>
BATHS <u>1</u>	CEIL'S <u>plaster</u>	ELEV <u>-</u>
LAVATORIES <u>1</u>	HDWE <u>A.</u>	FIRE ESC <u>-</u>
HEAT'G PLTS <u>1</u>	ELECT WK. <u>modern</u>	REFRIG <u>-</u>
	ELECT FIXT <u>A.</u>	GAS STOVES <u>-</u>
	SCREENS <u>copper</u>	BEDS <u>-</u>
BLDG HGT <u>28'</u>	W STRIP <u>metal</u>	CAB & FANS <u>built in</u>
BLDG AREA <u>207</u>	AWNINGS <u>-</u>	FRONT POR <u>8' x 10' conc.</u>
	SQ FT STOREFRONTS <u>-</u>	REAR POR <u>4' x 4' conc.</u>

REPRODUCTION COSTS

MAIN BLDG COST	CUBIC CONTENT	25,376	CU FT @	55¢	13,900-
" " " " "	" " " " "	" " " " "	CU FT @	" " " " "	\$ 14,025-
SEPARATE GARAGE NO CARS	<u>one</u>	UTILITIES WATER <input type="checkbox"/> SEWER <input type="checkbox"/> LIGHT <input checked="" type="checkbox"/> HEAT <input type="checkbox"/>			
WALLS	<u>frame</u>	ROOF <u>comp.</u>	FLOOR <u>conc.</u>	SPCL DOORS	@
COST OF GARAGE AREA	<u>200</u>	HT <u>10'</u>	CUBIC CONTENT	<u>2000</u>	CU FT @ <u>25¢</u>
OTHER IMPROVEMENTS					
CONSTRUCTION COST NEW					\$ 14,715-
ARCHITECT'S FEES, FINANCING, INTEREST, OTHER COSTS				5.7%	\$ 835-
REPRODUCTION COST NEW					\$ 15,550-

CODE - C - GOOD, GA - GOOD TO AVERAGE, A - AVERAGE, AP - AVERAGE TO POOR, P - POOR

At this point it will be helpful to distinguish between Market Value and Market Price. The following definitions are adapted from those published by the American Institute of Real Estate Appraisers:

MARKET PRICE - The price paid for a property; the amount of money that must be given or which may be obtained at the market in exchange under the immediate conditions existing at a certain date, regardless of pressures, motives or intelligence. To be distinguished from "Market Value."

MARKET VALUE - The highest price estimated in terms of money which a property will bring if exposed for sale by a willing and well-informed seller in the open market allowing a reasonable time to find a willing purchaser who buys with knowledge of all the uses to which it is adapted and for which it is capable of being used.

The essential difference between "Market Price" and "Market Value," as above defined, lies in the premises of intelligence, knowledge, and willingness, all of which are contemplated in "Market Value" but not in "Market Price." Stated differently, at any given moment of time "Market Value" connotes what a property is actually worth and "Market Price" what it may be sold for. The amounts may or may not coincide, since current supply and demand factors enter strongly into "Market Price."

Of these three values determined from prices in three different and distinct markets, **VALUE** and **MARKET VALUE** are the most important and fundamental in concept. The former is the worth of a property from use and the latter represents its worth to command money in exchange. **MAXIMUM VALUE** is of great importance, being a base or key value from which **VALUE** is often calculated; it is of more importance to the appraiser, however, than to the public.

MAXIMUM VALUE

In the determination of **MAXIMUM VALUE**, the appraiser must determine (a) the value of the land for its highest and best use; and (b) the estimated cost to reproduce the existing improvements under existing market conditions.

HIGHEST AND BEST USE

The highest and best use of the land is its most profitable use or that use which would create the greatest net return applicable to the land. In a great majority of cases, the actual development and use of the land is found to be its highest and best use. This is readily discernible to the experienced appraiser. In some localities that are undergoing a transition from an actual to a higher use,



APPRAISAL WORK SHEET-III
APPRAISAL-NON INCOME BASIS

ADDRESS OF PROPERTY St. Louis County, Missouri
MADE FOR Mr. John Doe

APPRAISAL N° _____
AS AT Aug. 15, 1948
MADE Aug. 15, 1948

ECONOMIC CONDITIONS AFFECTING VALUE

TYPE OF CONSTRUCTION frame with frame interior GRADE OF CONSTRUCTION FOR TYPE good
GRADE OF CONDITION FOR AGE new (SEE LIST OF NECESSARY REPAIRS)
STRUCTURAL FAULT crack in foundation wall
REMODELING AND MODERNIZATION none DATE _____
DISUSED ARCHITECTURAL STYLE AND DESIGN none
EXCESS IN LAYOUT AND CAPACITY none
OBSOLESCENT EQUIPMENT none
SITE LAYOUT- COVERAGE _____ %
UNDESIRABLE FEATURES OF LIVABILITY closets too small and too few
UNSALEABLE WHIMS IN DESIGN several unusual electronic devices (i.e. automatic door opener)
RELATION OF PRESENT USE TO ZONED USE _____ CONFORMING ☒ NON CONFORMING ☐
RELATION OF PRESENT IMPROVEMENTS TO SURROUNDING PROPERTIES _____ OVER IMPROVED ☐ CONFORMING ☒ UNDER IMPROVED ☐
RELATION OF CLASS OF IMPROVEMENTS TO SURROUNDING STANDARD OF LIVING _____ ABOVE ☐ CONFORMING ☒ BELOW ☐
IMPROVEMENTS INADEQUATE TO JUSTIFY LAND VALUE DETERMINED FROM HIGHER USE _____
ASSESSED VALUE: LAND \$ _____ IMPROVEMENTS \$ _____ TOTAL \$ _____ Est. TAXES 18 \$ 170-
OCCUPANCY: OWNER ☒ TENANT ☐ VACANT ☐ RENTS _____

APPRAISAL

PRESENT VALUE OF LAND - SHEET I 7 1/2 feet @ 50- per foot \$ 3,750-
REPRODUCTION COST NEW OF IMPROVEMENTS - SHEET II \$ 15,550-
TOTAL REPRODUCTION VALUE (MAXIMUM VALUE) \$ 19,300-

NECESSARY REPAIRS		ACCRUED DEPRECIATION		
ITEM	AMOUNT	ITEM	PERCENT	AMOUNT
		NORMAL WEAR AND TEAR		\$
		EXCESSIVE DETERIORATION FOR AGE		
		STRUCTURAL FAULT SEE NOTES	6.0	220-
		PHYSICAL DETERIORATION		\$ 220-
		OBsolete BUILDING		
		OBsolete EQUIPMENT		
		EXCESS CAPACITY		
		OBsolescence		\$
		MISPLACED IMPROVEMENTS		
		UNDESIRABLE LIVABILITY	4.0	620-
		UNSALEABLE FEATURES	10.0	1,550-
		UNDESIRABLE DESIGN		\$ 2,170-
		INACCESSIBILITY		
		INCONGRUOUS WITH PROPERTIES AND USES		
		INCOMPATIBLE WITH STANDARD OF LIVING		
		NON CONFORMITY TO ENVIRONMENT		\$
TOTAL NECESSARY REPAIRS	\$			\$ 3,100-

TOTAL LOSS ACCRUED DEPRECIATION \$ 3,100-
LOSS FROM INADEQUATE LAND USE _____ \$ _____
LOSS FROM UNFAVORABLE LEASE ☐ FROM EXCESSIVE TAXES ☐ _____ \$ _____
TOTAL LOSS IN WORTH _____ \$ 3,100-
TOTAL GAIN IN WORTH _____ ☐ HISTORICAL ☐ FAVORABLE LEASE ☐ FAVORABLE TAXES _____ \$ _____
B → APPRAISED VALUE (PRESENT WORTH) scarcity premium \$ 16,200-
MARKET VARIABLE: ADDITION ☒ DEDUCTION ☐ NONE ☐ \$ 800-
MARKET VALUE AFTER REPAIRS _____ \$ _____
NECESSARY REPAIRS _____ \$ _____
C → APPRAISED MARKET VALUE \$ 17,000-

CODE: G-6000; GA-6000 TO AVERAGE; A-AVERAGE; AP-AVERAGE TO POOR; P-POOR

considerable study is necessary before the appraiser can reach a logical conclusion.

There are several questions which the appraiser must answer to his own satisfaction before appraising land for a use higher than its actual use: (1) Is the land restricted in its use by deed or by zoning laws? (2) Does the proposed higher use appear to be the most logical and the most profitable use of the land after a detailed study of the location and its environment? (3) Do population growth or probable shifts in population and the surplus of like use space in the locality warrant the development of the land for this higher use in the immediate future or would they indicate such higher use in the distant future? (4) Do current sales of similar land tend to justify the appraised value of the land for such higher use? Prices obtained in some period in the past or the present asking prices are not a true indication of present value. In general, only conclusions which are based upon reasonable probabilities should be drawn; the consideration of possibilities leads to wishful thinking.

Frequently the appraiser is faced with an apparently "shifting" highest and best use. For instance, at certain times in the real estate cycle the highest and best use of a piece of downtown property may seem to be a parking lot - at another time the highest and best use may seem to be a one-story "taxpayer." Still further along in the cycle an eight-story office building may seem to fulfill the maximum requirements, and at another time the erection of a 40-story building may seem to be the highest and best use. Naturally, the appraiser cannot choose all of these alternates and close attention should be directed to the real estate cycle, which will frequently help the appraiser choose the highest and best use for the property over the long period.

REPLACEMENT COST

The second item of MAXIMUM VALUE is the cost to reproduce the existing improvements or the cost to construct proposed improvements. The cost which the appraiser must determine is that estimated cost which would represent the lowest and best bid, had several competent contractors submitted bids to reproduce the existing improvements in the existing market. It is proper to add to construction costs such items as architect fees, taxes and insurance during construction, financing fees, etc., in estimating reproduction cost. Marketing costs are usually not included as a part of reproduction cost, but in theory the inclusion is justified. The greater his experience and the closer his contacts with material and labor costs, the more accurate will be the appraiser's estimate; however, it is well known that competent contractors' bids on identical plans and specifications in the same market show a large spread between the high and the low bid.

METHODS OF ESTIMATING

There are several methods in estimating replacement cost. The most accurate method is that employed by the contractor who takes off bills of materials, estimates hours of labor and secures bids from subcontractors on those parts of construction which require specialized skill, such as plumbing, heating, tile work, plastering, etc. This is a lengthy and expensive method and cannot profitably be used by the appraiser for general practice in his determination of MAXIMUM VALUE.

The method next in accuracy is the unit cost method whereby the finished quantity of each type of construction is figured (such as foundation walls and brick walls, floors, partitions, etc.) and a unit cost applied to each. This is also a slow method and requires the appraiser to keep accurate records of unit costs for many types of construction. It is quite expensive if the appraiser uses this method exclusively in his appraisal work; however, it becomes necessary to use this method in part when properties vary from normal types.

One of the better books on the above two methods is the Building Estimator's Reference Book published by Frank R. Walker Company, Chicago, Illinois.

A short-cut method is the application of a cubic foot cost to the actual cubic content of the building. The degree of accuracy in this method depends upon the care used in measuring the property and in estimating cubic content and upon the accuracy and appropriateness of up-to-date cubic foot costs possessed by the appraiser. We have discussed the method of arriving at cubic content and square foot area in the two preceding bulletins.

One very valuable aid to our appraisal department are the up-to-date costs on several types of buildings kept by our research department. The research department estimates costs on various types of buildings each month by pricing (dealer-to-contractor, delivered-to-job price) all items in each building's bill of materials, and by obtaining current wage information and subcontractor overhead and profit figures from companies actively engaged in the building industry. The costs thus obtained are divided by the cubic content of the building in order to find the cubic cost. These cubic costs are used by our appraisal department as a yardstick to measure cubic costs on similar type buildings. On page 309 is a table showing the changes in costs of our standard six-room frame house from 1913 through July 1948. This is excellent material to use on an index basis to find the increase in construction costs for a two-story frame house. The cubic cost of the house is shown for several periods in the right-hand margin of the page. Most of the data necessary to estimate reproduction costs are found on our appraisal work sheet II on page 304. The total reproduction cost of a building very similar to the standard six-room frame house is \$15,550 (August 15, 1948). This cost includes garage, front and rear concrete stoops, concrete walks, architect fees, financing fees, etc. Appraisal work sheet III shows the value of the land to be \$3,750; therefore, the maximum value of the property was \$19,300. Certain depreciating influences (detailed on appraisal work sheet III) cause deductions of \$3,100 from maximum value. Thus the value (or appraised value) is \$16,200. To this value is added a scarcity premium of \$800, giving a market value of \$17,000.

If it were not for the depreciating influences in connection with the property, the maximum value figure would be the same as the value figure but not necessarily the same as the market value. (Market value might vary by the amount of scarcity premium or the surplus discount.) This method, while applied to a small residence for illustrative purposes, is the same for all types of properties, regardless of size.

BUILDING COSTS IN ST. LOUIS

Costs are grouped into four classifications of material, four of labor and three of overhead. A further breakdown of these groups is given in detail below. Columns of the table are numbered, and a brief description of the items included in each is given in the paragraphs below. Paragraphs are numbered to correspond with the columns described. Building material costs are indicated by the letter M; corresponding labor items, in red, by the letter L.

No labor items are shown in Column 10, Building Hardware, as they have already been included in Column 5, Millwork.

Group A

(1) Masonry: Cement, sand, gravel, quick lime, hydrated lime, hard wall plaster, face and common brick, fire brick, flue lining.

(2) Tile Work: 4-1/4 x 4-1/4 wall tile, ceramic floor tile, cap and base.

Group B

(3) Unfinished Lumber: Columns, beams, floor and ceiling joists, interior and exterior studs, rafters, bracing, etc.

(4) Finished Lumber: Sub-flooring, sheathing, finished floors, asphalt shingle roofing, roofing felt, shutters, etc.

Group C

(5) Millwork: Windows, doors, trim, kitchen cabinet, stairs.

(6) Heating: Heating plant, heating distribution, radiation.

(7) Plumbing: Soil pipes and connections, stack, water pipe and connections, lead oakum and bathroom fixtures, water heater and tank to be furnished by others.

Group D

(8) Sheet Metal: Galv. iron (present) gutters, downspouts, flashing.

(9) Electrical Work: Main switch, BX cable, switch boxes, receptacles, transformer, etc. No fixtures included.

(10) Nails and Hardware: Common and wire nails, bolts, damper, ash doors, finish hardware, etc.

(11) Painting: White lead, linseed oil, turpentine, varnish, shellac, filler.

(12) Miscellaneous: Lath, corner bead, insulation.

Total Material and Labor Costs

Group E

(13) Overhead and profit of subcontractors in plastering, metal work, heating, plumbing, electrical work and tile work.

(14) General contractor's profit.

(15) Missouri sales tax (now 2% on materials), old age and unemployment tax (Federal and State), liability and employees' compensation insurance, fire and tornado insurance, completion bond.

(16) Total overhead, profit and other costs.

TOTAL CONSTRUCTION COST

STANDARD SIX ROOM FRAME HOUSE

GROUP A				GROUP B				GROUP C				GROUP D				GROUP E				TOTAL	Year										
M	L	M	L	M	L	M	L	M	L	M	L	M	L	M	L	M	L	M	L												
1913	\$343	\$ 24	\$ 13	\$218	\$101	\$428	\$134	\$ 350	\$121	\$152	\$136	\$231	\$110	\$ 65	\$12	\$36	\$ 48	\$ 59	\$ 16	\$ 64	\$ 51	\$ 18	\$1973	\$1146	\$248	\$ 337	\$132	\$ 717	\$ 3836	1913	
1920	742	463	28	17	607	183	1189	243	1030	220	305	184	372	150	83	21	46	66	143	36	116	132	32	4713	1695	366	677	227	1270	7678	1920
1924	618	703	251	108	401	246	779	328	492	296	274	277	388	224	64	28	35	100	97	35	156	87	44	3521	2510	527	656	274	1457	7488	1924
1933	457	342	130	51	355	108	562	145	344	131	208	112	270	91	52	12	28	40	54	26	70	214	39	2700	1141	291	413	146	850	4651	1933
1939	513	525	103	77	390	159	660	211	513	190	239	160	277	133	49	19	27	57	64	29	109	192	56	3026	1696	344	505	323	1172	5894	1939
1940	510	539	114	79	403	159	686	216	562	196	241	160	287	139	62	17	33	57	65	31	93	196	65	3210	1720	360	528	333	1221	6151	1940
1941	507	652	153	86	513	203	811	267	651	241	251	180	276	162	80	22	29	64	72	34	128	213	79	3590	2084	401	607	393	1401	7075	1941
1942	519	689	172	86	545	226	872	298	709	269	270	195	316	180	64	29	50	74	79	37	141	229	78	3662	2265	430	656	422	1508	7635	1942
1943	522	656	151	83	586	198	914	261	715	235	273	180	317	149	56	25	50	64	79	38	130	230	79	3931	2072	421	641	359	1461	7464	1943
1944	528	648	175	89	700	189	1109	247	676	222	273	180	317	149	56	20	50	63	79	38	130	238	75	4242	2022	422	669	401	1482	7756	1944
1945	603	997	175	113	695	312	1117	429	702	345	273	292	320	251	56	20	50	101	79	38	197	246	120	4354	3177	515	805	553	1873	8404	1945
1946	645	1342	214	131	1134	390	1685	553	1017	481	353	396	404	319	102	29	73	127	115	185	241	317	153	6244	4162	670	1103	750	2523	12929	1946
1947	681	1342	214	131	939	390	1631	553	1035	481	377	396	396	319	102	29	76	127	132	176	241	317	153	6063	4162	678	1092	746	2516	12761	1947
1948	729	1463	258	147	1045	407	1706	563	1107	488	456	396	457	359	145	29	73	127	139	173	262	340	153	6628	4394	745	1177	796	2718	13740	1948
1949	735	1463	258	147	1045	407	1714	563	1112	488	446	396	509	359	117	29	73	127	139	173	262	357	153	6678	4394	743	1182	794	2720	13792	1949
1950	735	1463	258	147	1045	407	1720	563	1112	488	446	396	487	359	117	29	76	127	139	197	282	357	153	6701	4394	744	1184	794	2722	13817	1950
1951	735	1463	258	147	1045	407	1713	563	1112	488	404	396	501	359	117	29	76	127	139	197	282	357	153	6754	4394	757	1191	798	2746	13894	1951
1952	735	1463	258	151	1027	407	1713	563	1112	488	504	396	511	359	117	29	76	127	139	197	282	357	153	6746	4396	761	1191	797	2749	13893	1952
1953	739	1463	258	151	1027	407	1744	563	1112	488	526	396	513	359	117	29	76	127	139	197	282	357	153	6807	4396	767	1197	799	2763	13968	1953
1954	747	1554	258	151	1045	437	1713	601	1142	530	529	442	517	359	122	29	76	139	139	197	287	357	183	6842	4692	798	1233	837	2868	14402	1954